Claims 1-10 and 19-24 are pending in this application.

Applicant's election with traverse of the invention of Group I, wherein Compound I is the representative species of component (a) and tebuconzaole is the representative species of component (b) in the reply filed on 1/22/2010 is noted here again for the record. The amendment of 7/8/2010 renders claims 2-10 and 19-24 not readable on the elected and previously examined invention (tebuconazole). Accordingly, claims 2-10 and 19-24 are hereby withdrawn from further consideration as being directed to non-elected subject matter. Claim 1 remains as the sole claim readable on the elected subject matter. Claim 1 will presently be examined to the extent it reads on the elected subject matter.

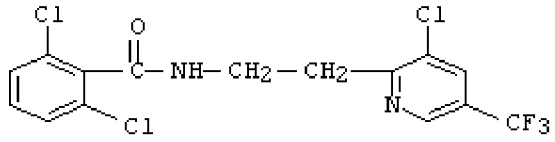
Applicant's disqualification of WO 2004/016088 under 35 USC 103(c) is deemed proper.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of WO 01/11965 and Holmwood et al. (US 4,723,984) in view of Hopkinson (US 6,746,988).

WO 01/11965 broadly discloses applicant's compounds of formula (I) as fungicides. See Example 5 in paragraph 0096 in view of paragraphs 0002 to 0031. The structure of Example 5 compound is drawn below by the undersigned Examiner.



It is noted that this compound is readable on applicant's independent claim 1, formula (I). Alternative substitution on the phenyl ring moiety is disclosed as including halogen and haloalkyl (C_{1-6}). See paragraphs 0026 and 0028. Fungicidal activity against fungal diseases of plants such as mildews, cereal powdery mildew, *Erysiphe graminis* and many others are disclosed (paragraph 0037). Combination with other fungicides, insecticides and pesticides is disclosed (paragraph 0041). Concentration of 0.0001 to 1 wt% for direct application and 5 to 95 wt% concentrate strength composition are disclosed (paragraph 0052). 5-1000 g per hectare application rate is disclosed (paragraph 0053). Combination with diluent, carrier, and various additives such as surface active agent dispersing agent, emulsifying agent is disclosed (paragraphs 0042-0051). See treatment is disclosed (paragraph 0053). Soil application and foliar application are disclosed (paragraphs 0053-0054).

Holmwood et al. disclose tebuconazole as a fungicide for protecting plants (claims 1, 3, 7, 9, 13, 15; column 38, lines 48-68). Concentration strength of 0.1 to 95 wt% is disclosed (column 40, lines 1-3). 0.01-50 kg/hectare of soil surface and 0.001-

50 g/kg seed application rates are disclosed (column 40, lines 22-26). Protective action and systemic action are disclosed, as are applications to plant parts, the soil, root and seeds (column 39, first paragraph; column 40, lines 46-68). Combination with other known active compounds such as fungicides is disclosed (column 40, lines 4-8). Use with various carriers, surfactants and other conventional additives is disclosed (column 39, lines 8-68).

The patent by Hopkinson et al. is cited to establish that applicant's compound (b) and (c) fungicides are well-known fungicides, which are known to be used in combination. See claim 16, which discloses for example tebuconazole, trifloxystrobin, thiabendazole, propineb, difenoconazole, diniconazole, epoxiconazole, fenbuconazole, hexaconazole, imbenconazole, ipconazole, and many other well-known fungicides, and mixtures thereof.

The difference between the claimed invention and the cited references is that the references do not expressly disclose the specific combination of compound I + a triazole-structured compound such as tebuconazole. However, both compounds have been taught by the prior art as agriculturally useful fungicides, and combination with other fungicides has been specifically suggested. Therefore, one having ordinary skill in the art would have been motivated to combine the fungicidal compound of formula I such as compound I with a well-known triazole-structured fungicide such as tebuconazole with the expectation of obtaining an advantageous fungicidal mixture, as claimed. In re Kerkhoven, 205 USPQ 1069, 1072 (CCPA 1980); In re Crockett, 126 USPQ 186 (CCPA); Ex parte The NutraSweet Co., 19 USPQ2d 1586, 1587 (Bd. Pat.

App. & Int. 1991). Further addition of a third known fungicide would have been similarly suggested from the motivation to obtain additional activity and spectrum of control.

Regarding ratio of 0.01 to 20 (a to b), such ratio would have been obvious from the prior art concentration and application amounts, which when combined at their known amounts and rates would provide such ratio of components.

Applicant's specification data has been reviewed, but the data there is not commensurate in scope with that of the claims. Evidence of nonobviousness, if any, must be commensurate in scope with that of the claimed subject matter. In re Kulling, 14 USPQ2d 1056, 1058 (Fed. Cir. 1990); In re Lindner, 173 USPQ 356, 358 (CCPA 1972).

Applicant discloses observed data and synergism calculations based on the Colby formula. However, this formula is a rudimentary simplification of expected antimicrobial activity. The formula assumes that antimicrobial activity is linear and the second ingredient only acts on the surviving population that was not controlled by the first ingredient, further assuming that the surviving population is totally unaffected, not even slightly weakened, by the first ingredient. The formula can be rewritten as follows: $E = x + y\ (1 - x/100)$. Note that the underlying assumption in Colby is that y acts only on the surviving population that was totally unaffected by the first ingredient, i.e. $(1 - x/100)$. But such assumptions are rarely validated by actual observations.

For example, Colby can't even reliably predict what would happen when a single compound is used, due to its faulty and too-simple assumptions. Suppose there is a blind test of two 15 g/ha doses of unidentified fungicides, A and B. A provides 25%

efficacy, B provides 25% efficacy, but A + B provides about 60-65% efficacy. Using Colby, the blind experiment could lead the person of ordinary skill in the art to conclude that A + B is synergistic because E = 25 + 25 — (25x25/100) = 43.75. However, when it's revealed that A and B are both the same, compound I (see applicant's data on specification page 13), the ordinary skilled artisan would immediately recognize that Colby underestimates the expected efficacy such that it would even lead to the anomalous conclusion that a fungicidal compound synergizes itself.

Therefore, applicant's specification data and conclusion of synergism based on the Colby formula cannot be found persuasive. In the data for compound I + tebuconazole on page 13, the Examiner would note that result for 15 g/ha compound I + 15 g/ha tebuconazole is clearly synergistic and unexpected, but result for 31 g/ha + 31 g/ha would have been expected because it is no more than additive of the efficacies of compound I and tebuconazole. To date, applicant has presented no claim that is limited to 15 g/ha compound I and 15 g/ha tebuconazole. Note also that the data is tied to the 15 g/ha feature, which means that this is a method invention step, which is relevant only to a method invention. A composition claim cannot properly recite a 15 g/ha feature because the g/ha feature is a method invention feature and not a composition invention feature, i.e. a claimed composition invention of A + B cannot be affected or further limited by how much one intends to apply to the field. The only exception would be in claiming the composition as a unit dosage, e.g. a composition comprising 15 g of compound I + 15 g of compound B.

For these reasons, applicant's data is found insufficient and not commensurate in scope with that of the claimed subject matter. Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

Applicant's arguments of 7/8/2010 have been given due consideration but they were deemed unpersuasive. Disclosure of the Colby method in other U.S. patents does not mean that it was used to determine patentable subject matter. Similar to here, if this case were to hypothetically issue as a patent at some later point in time, it would be due to evaluation of data through other means, not the Colby method; but the thus-issued hypothetical patent would have the Colby method disclosure, just like the other patents that applicant cite. Specification disclosure of a method of evaluating data is not sufficient evidence that said method was actually used to arrive at patentability determination.

Applicant also challenges the Examiner's rationale regarding the Colby method, but the Examiner was merely using applicant's own data on specification page 13 to demonstrate the faulty workings of the Colby method. It can't even be used on known and expected data, how can it be used to determine unexpected data?

For these reasons, applicant's arguments are found unpersuasive and this ground of rejection must be maintained.

Applicant is advised of obviousness type double patenting issues that are raised by U.S. Patents 7,776,892 (claim 9 recites hexaconazole) and 7,786,148 (claim 9 recites prothioconazole). As instant claim 10 is presently not under examination, a ground of rejection would appear premature; but applicant is advised of the benefit of early filing of terminal disclaimers for expedited prosecution.

It is noted that the Examiner and applicant's attorneys, Mr. Grandinetti and Mr. James, discussed allowing the claims by limiting component (B) to the following:

bitertanol,

cyproconazole,

difenoconazole,

epoxiconazole,

hexaconazole,

myclobutanil,

prothioconazole, and

triadimenol.

However, the potential double patenting issue was newly raised after a search update and a final agreement could not be timely reached. See Interview summary, attached hereto.

Applicant is **further advised** that a new 103 ground of rejection has been made in this Office action. As a result, any previous indication of allowability (allowable but for the double patenting issue) must be rescinded because applicant must now address and overcome said new ground of rejection.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to John Pak whose telephone number is **(571)272-0620.** The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Pak/
Primary Examiner, Art Unit 1616